



# Refine Search

## Search Results -

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US OCR Full-Text Database  
EPO Abstracts Database  
JPO Abstracts Database  
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L10

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## Search History

**DATE:** Sunday, May 15, 2005 [Printable Copy](#) [Create Case](#)

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<u>L10</u> L9 and @pd > 20040926	1	<u>L10</u>
<u>L9</u> L6 and (data ADJ flow)	10	<u>L9</u>
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<u>L7</u> L6 and (data ADJ flow) OR DFD	448	<u>L7</u>
<u>L6</u> (ER ADJ diagram) OR (ER-Diagram) OR (entity-Relation ADJ diagram) OR (entity ADJ relation ADJ diagram)	39	<u>L6</u>
<u>L5</u> L4 and (object ADJ diagram)	1	<u>L5</u>
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<u>L3</u> L2 and relationship	63	<u>L3</u>
<u>L2</u> L1 and association	90	<u>L2</u>
<u>L1</u> (717/103).ccls. or (717/108).ccls.	295	<u>L1</u>

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Terms	Documents
(ER ADJ diagram) OR (ER-Diagram) OR (entity-Relation ADJ diagram) OR (entity ADJ relation ADJ diagram)	39

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## Search Results - Record(s) 1 through 39 of 39 returned.

### 1. Document ID: US 6859523 B1

L6: Entry 1 of 39

File: USPT

Feb 22, 2005

US-PAT-NO: 6859523

DOCUMENT-IDENTIFIER: US 6859523 B1

TITLE: Universal task management system, method and product for automatically managing remote workers, including assessing the work product and workers

DATE-ISSUED: February 22, 2005

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jilk; David J.	Broomfield	CO		
Kellner; Brian L.	Superior	CO		
Ganora; Victor	Louisville	CO		
Kotsines; Thomas A.	Denver	CO		

US-CL-CURRENT: 379/32.01; 379/265.01, 379/265.03, 379/265.05, 379/265.06,  
379/265.12, 379/32.02

## ABSTRACT:

A computer implemented method, a system, and a software product to automatically manage one or more human workers carrying out a process of manipulating source data provided to produce result data. The process including a set of one or more task steps each having an input and resulting in a task result. The computer implemented method includes receiving units of source data from a customer. For each unit of source data and each task step for the unit of source data, the method includes dispatching the task step and its corresponding input unit to a worker and, after the worker carries out the dispatched task step on the input unit, receiving the task result corresponding to the dispatched task step and input unit from the worker. Each worker is certified to have one or more task skills, wherein each task step requires a corresponding task skill, and wherein the dispatching of any task step occurs automatically substantially without human management to a worker who is certified to have the corresponding task skill of the task step. The method further includes assessing at least some of the task results of at least some of the task steps for at least some of the units of source data. A version of the method further includes generating the result data for the unit of source data from one or more of the task results corresponding to the task steps of the set and sending the result data for the unit of source data to the customer.

79 Claims, 11 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 9

2. Document ID: US 6836777 B2

L6: Entry 2 of 39

File: USPT

Dec 28, 2004

US-PAT-NO: 6836777

DOCUMENT-IDENTIFIER: US 6836777 B2

TITLE: System and method for constructing generic analytical database applications

DATE-ISSUED: December 28, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Holle; Dan	Weybridge			GB

US-CL-CURRENT: 707/101; 707/100

ABSTRACT:

Disclosed is a system and method for constructing generic analytical database applications through the automated creation of metadata to establish an application structure controlling the availability and operability of individual applications.

5 Claims, 2 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 2

3. Document ID: US 6816867 B2

L6: Entry 3 of 39

File: USPT

Nov 9, 2004

US-PAT-NO: 6816867

DOCUMENT-IDENTIFIER: US 6816867 B2

TITLE: System, method, and user interfaces for mining of genomic data

DATE-ISSUED: November 9, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jevons; Luis	Sunnyvale	CA		
Awad; Timothy A.	San Francisco	CA		
Sheppy; Conrad G.	Redwood City	CA		
Ellis; Nicole	Monte Serenone	CA		

US-CL-CURRENT: 707/102; 435/5, 700/90, 707/104.1, 707/3, 707/5

**ABSTRACT:**

A data mining tool is described that includes a data structure populator that stores one or more first sets of data selected for querying into a first data structure. The tool also has a query builder that builds at least a first query based, at least in part, on one or more query parameters. Also included in the tool is a query manager that interrogates the first data structure with the first query. The one or more first sets of data are based, at least in part, on experiments using both synthesized probe arrays and spotted probe arrays.

29 Claims, 14 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 14

Full	Title	Citation	Front	Backend	Classification	Date	Reference	Document	Claims	Comments	Demand
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4. Document ID: US 6804679 B2

L6: Entry 4 of 39

File: USPT

Oct 12, 2004

US-PAT-NO: 6804679

DOCUMENT-IDENTIFIER: US 6804679 B2

TITLE: System, method, and user interfaces for managing genomic data

DATE-ISSUED: October 12, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jevons; Luis	Sunnyvale	CA		
Bernhart; Derek	Lafayette Hill	PA		
Sheppy; Conrad G.	Redwood City	CA		

US-CL-CURRENT: 707/102; 707/1, 707/10, 707/2, 707/3, 707/4

**ABSTRACT:**

A data manager is described for providing a publish database for access by data mining tools and other data processing software applications. The data manager includes a results-for-publication identifier that identifies synthesized probe array results and spotted probe array results for publishing. This identification may be based, at least in part, on user selections. The data in the publish database is organized in accordance with an integrated database schema. The data manager may also include an experimental results registration processor that registers the synthesized probe array results and the spotted probe array results for publishing. This registration may be based, at least in part, on user selections. For example, a user may select certain probe array results from a graphical user interface displaying a tree of files containing probe array results from multiple experiments with synthesized and/or spotted probe arrays.

31 Claims, 14 Drawing figures

Exemplary Claim Number: 1  
Number of Drawing Sheets: 14

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	Table	Draw
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5. Document ID: US 6778971 B1

L6: Entry 5 of 39

File: USPT

Aug 17, 2004

US-PAT-NO: 6778971

DOCUMENT-IDENTIFIER: US 6778971 B1

TITLE: Methods and apparatus for analyzing computer-based tasks to build task models

DATE-ISSUED: August 17, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Altschuler; Steven J.	Redmond	WA		
Ingerman; David	New York	NY		
Jung; Edward K.	Bellevue	WA		
Ridgeway; Greg	Bellevue	WA		
Wu; Lani F.	Redmond	WA		

US-CL-CURRENT: 706/55; 700/29

ABSTRACT:

Methods and apparatus for analyzing tasks performed by computer users by (i) gathering usage data, (ii) converting logged usage data into a uniform format, (iii) determining or defining task boundaries, and (iv) determining a task analysis model by "clustering" similar tasks together. The task analysis model may be used to (i) help users complete a task (such help, for example, may be in the form of a gratuitous help function), and/or (ii) to target marketing information to users based on user inputs and the task analysis model. The present invention also provides a uniform semantic network for representing different types of objects in a uniform way.

100 Claims, 69 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 46

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	Table	Draw
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6. Document ID: US 6754181 B1

L6: Entry 6 of 39

File: USPT

Jun 22, 2004

US-PAT-NO: 6754181

DOCUMENT-IDENTIFIER: US 6754181 B1

TITLE: System and method for a directory service supporting a hybrid communication system architecture

DATE-ISSUED: June 22, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Elliott; Isaac K.	Colorado Springs	CO		
Krishnawswamy; Sridhar	Cedar Rapid	IA		

US-CL-CURRENT: 370/252; 370/352, 370/356

ABSTRACT:

Telephone calls, data and other multimedia information is routed through a hybrid network which includes transfer of information across the internet utilizing telephony routing information and internet protocol address information. A media order entry captures complete user profile information for a user. This profile information is utilized by the system throughout the media experience for routing, billing, monitoring, reporting and other media control functions. Users can manage more aspects of a network than previously possible, and control network activities from a central site. A directory service that supports a hybrid communication system architecture is provided for routing traffic over the hybrid network and the internet.

12 Claims, 191 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 133

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Abstract](#) | [Claims](#) | [KDDC](#) | [Drawings](#)

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7. Document ID: US 6731625 B1

L6: Entry 7 of 39

File: USPT

May 4, 2004

US-PAT-NO: 6731625

DOCUMENT-IDENTIFIER: US 6731625 B1

TITLE: System, method and article of manufacture for a call back architecture in a hybrid network with support for internet telephony

DATE-ISSUED: May 4, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Eastep; Guido M.	McKenney	TX		
Litzenberger; Paul	Wilie	TX		
Orebaugh; Shannon R.	Herndon	VA		

US-CL-CURRENT: 370/352; 370/389, 370/392, 379/114.01, 379/90.01, 379/93.07

**ABSTRACT:**

A callback system is created utilizing a hybrid telecommunication system including a switched communication network and a packet transmission network. A call parameter database is stored in a memory. A call is received on the system. The call parameter database is accessed to determine at least one call parameter. The call is routed over the switched communication network and the packet transmission network based on the at least one call parameter. A plurality of service engines is provided, each configured to execute desired service logic utilizing expert system.

39 Claims, 188 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 187

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	TOC	Draft TOC
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8. Document ID: US 6684216 B1

L6: Entry 8 of 39

File: USPT

Jan 27, 2004

US-PAT-NO: 6684216

DOCUMENT-IDENTIFIER: US 6684216 B1

TITLE: Method and computer system for providing input, analysis, and output capability for multidimensional information

DATE-ISSUED: January 27, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Duliba; Katherine A.	Edison	NJ	08820	
Dorsey; Paul R.	Colonia	NJ		

US-CL-CURRENT: 707/102; 707/104.1

**ABSTRACT:**

A method includes creating and storing in various relational database tables: a biz metrix, by articulating variables that will appear on the metrix; biz metrix components; structure or relationships of the biz metrix; data elements that will appear on the metrix, including a text field storing a rule; defining the rule; creating and storing the metrix itself; metrix details; and potential types of subjects of the biz metrix.

13 Claims, 55 Drawing figures

Exemplary Claim Number: 2

Number of Drawing Sheets: 31

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	TOC	Draft TOC
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9. Document ID: US 6606613 B1

L6: Entry 9 of 39

File: USPT

Aug 12, 2003

US-PAT-NO: 6606613

DOCUMENT-IDENTIFIER: US 6606613 B1

TITLE: Methods and apparatus for using task models to help computer users complete tasks

DATE-ISSUED: August 12, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Altschuler; Steven J.	Redmond	WA		
Ingerman; David	New York	NY		
Jung; Edward K.	Bellevue	WA		
Ridgeway; Greg	Bellevue	WA		
Wu; Lani F.	Redmond	WA		

US-CL-CURRENT: 706/21; 707/3, 707/6

ABSTRACT:

Methods and apparatus for analyzing tasks performed by computer users by (i) gathering usage data, (ii) converting logged usage data into a uniform format, (iii) determining or defining task boundaries, and (iv) determining a task analysis model by "clustering" similar tasks together. The task analysis model may be used to (i) help users complete a task (such help, for example, may be in the form of a gratuitous help function), and/or (ii) to target marketing information to users based on user inputs and the task analysis model. The present invention also provides a uniform semantic network for representing different types of objects in a uniform way.

57 Claims, 69 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 46

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10. Document ID: US 6564258 B1

L6: Entry 10 of 39

File: USPT

May 13, 2003

US-PAT-NO: 6564258

DOCUMENT-IDENTIFIER: US 6564258 B1

TITLE: Detection of network topology changes affecting trail routing consistency

DATE-ISSUED: May 13, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Uniacke; Mark	Hertfordshire			GB

US-CL-CURRENT: 709/223; 370/351, 707/10, 709/201, 709/202, 709/203, 709/220,  
709/224, 710/220

**ABSTRACT:**

There is disclosed a method and apparatus for detection of client trails which may become unsupported due to reconfiguration of node elements within a network at a server layer, and a rerouting apparatus and method for proposing a set of alternative routes to support client trails during reconfiguration of a network at a physical layer. Data describing each trail, connection, node, link and other physical resource is maintained in a managed object database on a network controller. A trail detection algorithm investigates trail termination points corresponding to proposed deleted or created trails to see if those termination points support client trails at higher layers. If supported client trails are detected at higher layers, a routing algorithm is applied to find a set of alternative routes over which the client layer trails may be rerouted during network configuration at the physical or server layer.

31 Claims, 16 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 14

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11. Document ID: US 6560592 B1

L6: Entry 11 of 39

File: USPT

May 6, 2003

US-PAT-NO: 6560592

DOCUMENT-IDENTIFIER: US 6560592 B1

TITLE: Multi-model computer database storage system with integrated rule engine

DATE-ISSUED: May 6, 2003

**INVENTOR-INFORMATION:**

NAME	CITY	STATE	ZIP CODE	COUNTRY
Reid; Jon D.	West Lafayette	IN		
Brugger; S. Terry	Brentwood	CA		

US-CL-CURRENT: 707/2; 706/2, 706/6

**ABSTRACT:**

In one form of the invention, a computer database storage system is disclosed, comprising a data storage medium adapted to store a plurality of pieces of information, at least one piece of data stored in the data storage medium, and at least one rule stored in the data storage medium, each said at least one rule comprising a premise, an action, wherein the action is performed if the premise is determined to be true, an alternate action, wherein the alternate action is

performed if the premise is determined to be false, and a trigger, wherein the trigger causes evaluation of the premise upon the occurrence of a predetermined event.

23 Claims, 23 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 18

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12. Document ID: US 6553383 B1

L6: Entry 12 of 39

File: USPT

Apr 22, 2003

US-PAT-NO: 6553383

DOCUMENT-IDENTIFIER: US 6553383 B1

TITLE: Device for data analysis and organization

DATE-ISSUED: April 22, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Martin; Guillaume

F-75016 Paris

FR

US-CL-CURRENT: 707/102

ABSTRACT:

The invention relates to a data processing device comprising a database management system (470). The management system (470) can cooperate with an operating system so as to allow the user the creation/input and/or the use of a database comprising at least one data table (475) which can be broken down into rows and columns. According to the invention, the device furthermore comprises: an autonomous meta-dictionary (510) for dynamically storing chosen information relating to the structure of each table of the database, and to the relationships between tables, an analysis means (530) capable of determining and of storing at least temporarily a representation of groups of interrelated columns, and a restructuring module (580, 590) capable of cooperating with the analysis means and the meta-dictionary with a view to establishing for the user a presentation of the database which takes account of at least one group of thus related columns.

19 Claims, 27 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 22

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13. Document ID: US 6539374 B2

L6: Entry 13 of 39

File: USPT

Mar 25, 2003

US-PAT-NO: 6539374

DOCUMENT-IDENTIFIER: US 6539374 B2

**\*\* See image for Certificate of Correction \*\***

TITLE: Methods, apparatus and data structures for providing a uniform representation of various types of information

DATE-ISSUED: March 25, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jung; Edward K.	Bellevue	WA		

US-CL-CURRENT: 707/4; 707/104.1

ABSTRACT:

Methods and apparatus for analyzing tasks performed by computer users by (i) gathering usage data, (ii) converting logged usage data into a uniform format, (iii) determining or defining task boundaries, and (iv) determining a task analysis model by "clustering" similar tasks together. The task analysis model may be used to (i) help users complete a task (such help, for example, may be in the form of a gratuitous help function), and/or (ii) to target marketing information to users based on user inputs and the task analysis model. The present invention also provides a uniform semantic network for representing different types of objects in a uniform way.

18 Claims, 69 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 46

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14. Document ID: US 6490581 B1

L6: Entry 14 of 39

File: USPT

Dec 3, 2002

US-PAT-NO: 6490581

DOCUMENT-IDENTIFIER: US 6490581 B1

**\*\* See image for Certificate of Correction \*\***

TITLE: System and method for providing an object-oriented interface to a relational database

DATE-ISSUED: December 3, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Neshatfar; Shapour	Manalapan	NJ		
Warty; Pramod	Freehold	NJ		

US-CL-CURRENT: 707/4; 707/103R

**ABSTRACT:**

A method provides for an easily understood representation of the elements and relationships captured in a relational database. In accordance with the method an object model specification file and a database schema file are parsed to create a user-friendly graphical representation of object models and their relationship. The user is able perform a query by selecting one or more objects and setting constraints using the graphical representation of object models.

6 Claims, 10 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 9

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15. Document ID: US 6476814 B1

L6: Entry 15 of 39

File: USPT

Nov 5, 2002

US-PAT-NO: 6476814

DOCUMENT-IDENTIFIER: US 6476814 B1

TITLE: Display structure for representation of complex systems

DATE-ISSUED: November 5, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Garvey; Robert B.	Lake Lotawana	MO		

US-CL-CURRENT: 345/440

ABSTRACT:

A multi-dimensional outline, a wordgraph, represents a subset of a directed graph with a given starting node where all edges related to a node in one direction, either incident out of that node or incident into that node appear indented below that node as in outlining represented by their terminal node or initial node respectively and all edges related in the other direction appear indented above that node represented by their initial node or terminal node, respectively, with the initial nodes and terminal nodes distinguished.

10 Claims, 2 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 2

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16. Document ID: US 6442557 B1

L6: Entry 16 of 39

File: USPT

Aug 27, 2002

US-PAT-NO: 6442557

DOCUMENT-IDENTIFIER: US 6442557 B1

TITLE: Evaluation of enterprise architecture model including relational database

DATE-ISSUED: August 27, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Buteau; Brandon L.	Hollis	NH		
Moulton; Christine S.	Hollis	NH		

US-CL-CURRENT: 707/102; 705/7, 707/3

ABSTRACT:

A memory is provided for storing data for access by a database program being executed on a computer system for evaluating an enterprise architecture. A data structure is stored in the memory with the data structure including information resident in a database used by the database program. The data structure includes a work flow model, an information model; and a technology model. Each model includes a plurality of entities linking the models together. The computer system executes the database program for evaluating linkages between entities and how architectural changes to the enterprise affect the enterprise architecture by accessing the memory storing the data structure, and generates a result indicative of the linkages between entities.

30 Claims, 10 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 10

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17. Document ID: US 6418448 B1

L6: Entry 17 of 39

File: USPT

Jul 9, 2002

US-PAT-NO: 6418448

DOCUMENT-IDENTIFIER: US 6418448 B1

TITLE: METHOD AND APPARATUS FOR PROCESSING MARKUP LANGUAGE SPECIFICATIONS FOR DATA AND METADATA USED INSIDE MULTIPLE RELATED INTERNET DOCUMENTS TO NAVIGATE, QUERY AND MANIPULATE INFORMATION FROM A PLURALITY OF OBJECT RELATIONAL DATABASES OVER THE WEB

DATE-ISSUED: July 9, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sarkar; Shyam Sundar	San Mateo	CA	94403	

US-CL-CURRENT: 707/104.1; 707/1, 707/100, 707/101, 707/103R, 709/203, 709/229

**ABSTRACT:**

The present invention provides a system for navigation through multiple documents in Extensible Markup Language and Resource Description Framework to inspect data/metadata in order to either start a transaction on selected item(s) in separate thin client window(s) with persistent connectivity through Internet Inter ORB Protocol or implicitly trigger read-only queries in Structured Query Language (SQL) represented in Resource Description Framework against a unified virtual Database defined over multiple physical disparate object relational databases over the web. An implicitly generated query retrieves desired sets of properties and entities presented in documents of Extensible Markup Language and Resource Description Framework for further navigation. Container types in Resource Description Framework are mapped by this invention to record and table types in a normalized relational model where URIs locating elements in relational schema components over the web are stored as primary keys/foreign keys in normalized tables. Methods and operators on such web objects are defined as part of user-defined package definitions in object relational schema where object request brokers apply such methods or operators on result sets from relational operations anywhere on the web. This invention uniquely incorporates two distinct stages of SQL computations for a collaborative method of preparation, execution and resolution of an object SQL query over disparate locations of multiple object relational databases on the web.

15 Claims, 24 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 24

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18. Document ID: US 6335927 B1

L6: Entry 18 of 39

File: USPT

Jan 1, 2002

US-PAT-NO: 6335927

DOCUMENT-IDENTIFIER: US 6335927 B1

TITLE: System and method for providing requested quality of service in a hybrid network

DATE-ISSUED: January 1, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Elliott; Isaac K.	Colorado Springs	CO		
Reynolds; Tim E.	Iowa City	IA		
Krishnaswamy; Sridhar	Cedar Rapid	IA		

US-CL-CURRENT: 370/352

**ABSTRACT:**

Telephone calls, data and other multimedia information is routed through a hybrid network which includes transfer of information across the internet. A media order entry captures complete user profile information for a user. This profile

information is utilized by the system throughout the media experience for routing, billing, monitoring, reporting and other media control functions. Users can manage more aspects of a network than previously possible, and control network activities from a central site. The hybrid network also contains logic for responding to requests for quality of service and reserving the resources to provide the requested services.

16 Claims, 191 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 133

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19. Document ID: US 6330554 B1

L6: Entry 19 of 39

File: USPT

Dec 11, 2001

US-PAT-NO: 6330554

DOCUMENT-IDENTIFIER: US 6330554 B1

TITLE: Methods and apparatus using task models for targeting marketing information to computer users based on a task being performed

DATE-ISSUED: December 11, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Altschuler; Steven J.	Redmond	WA		
Ingerman; David	New York	NY		
Jung; Edward K.	Bellevue	WA		
Ridgeway; Greg	Bellevue	WA		
Wu; Lani F.	Redmond	WA		

US-CL-CURRENT: 706/21; 705/10

ABSTRACT:

Methods and apparatus for analyzing tasks performed by computer users by (i) gathering usage data, (ii) converting logged usage data into a uniform format, (iii) determining or defining task boundaries, and (iv) determining a task analysis model by "clustering" similar tasks together. The task analysis model may be used to (i) help users complete a task (such help, for example, may be in the form of a gratuitous help function), and/or (ii) to target marketing information to users based on user inputs and the task analysis model. The present invention also provides a uniform semantic network for representing different types of objects in a uniform way.

11 Claims, 69 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 46

20. Document ID: US 6246975 B1

L6: Entry 20 of 39

File: USPT

Jun 12, 2001

US-PAT-NO: 6246975

DOCUMENT-IDENTIFIER: US 6246975 B1

**\*\* See image for Certificate of Correction \*\***

TITLE: Computer architecture and process of patient generation, evolution, and simulation for computer based testing system

DATE-ISSUED: June 12, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Rivonelli; Richard J.	Lexington	KY		
Sumner, II; Walton	Webster Groves	MO		
Marek; Victor W.	Lexington	KY		
Truszcynski; Miroslaw	Lexington	KY		

US-CL-CURRENT: 703/11; 128/920, 434/262

ABSTRACT:

A computer implemented simulation and evaluation method simulates interventions to a patient by a user, and evaluates the interventions responsive to predetermined criteria and the interventions. The method includes defining a test area to evaluate the user to at least one of predetermined criteria and a user profile, selecting genetic information of the patient responsive to the test area, and generating a patient history responsive to the test area and the genetic information. The method also includes receiving at least one intervention input by the user, and evaluating the user responsive to the intervention and predetermined criteria.

51 Claims, 18 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 16

21. Document ID: US 6003039 A

L6: Entry 21 of 39

File: USPT

Dec 14, 1999

US-PAT-NO: 6003039

DOCUMENT-IDENTIFIER: US 6003039 A

TITLE: Data repository with user accessible and modifiable reuse criteria

DATE-ISSUED: December 14, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Barry; Tim	Jersey City	NJ		
Lane; Flint	Princeton Junction	NJ		

US-CL-CURRENT: 707/103R; 707/102, 707/2, 707/201, 707/203

ABSTRACT:

The invention disclosed herein is implemented in a repository which stores metadata relating to data stored in one or more databases. The repository includes a repository database in which the metadata is stored, one or more scanners each of which scans at least one database and obtains metadata therefrom, and one or more loaders each of which loads metadata obtained by at least one scanner into the repository database in accordance with the externalized reuse criteria. According to the invention, metadata stored in the repository is reused, for example, not replaced by identical metadata when the repository is updated or populated, and the criteria governing reuse is externalized, i.e., accessible and modifiable by a repository user. The reuse criteria accessible to repository users is stored separate from repository program code at a non-programming level such that the customer (user) can change the reuse procedures without an experienced programmer.

13 Claims, 17 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 15

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) |  |  | [Claims](#) | [TOC](#) | [Drawings](#)

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22. Document ID: US 6002396 A

L6: Entry 22 of 39

File: USPT

Dec 14, 1999

US-PAT-NO: 6002396

DOCUMENT-IDENTIFIER: US 6002396 A

TITLE: System and method for defining a process structure for performing a task

DATE-ISSUED: December 14, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Davies; Trevor Bryan	Essex CM6 1XX			GB

US-CL-CURRENT: 715/763; 705/7, 705/8, 715/839, 715/853, 715/965, 715/967

ABSTRACT:

A system and method for defining a process structure for performing a task. The system comprises a computer, having a data storage memory, a keyboard for inputting data and a screen. A user inputs a first process definition which comprises a verb word and an object word defining the task for which a structure is to be created.

The user is then able to define subsequent process definitions which are a predicted consequence of executing the first process definition or a predicted constituent step in executing the first process definition. By analyzing each process definition at each stage a complete process structure for performing the task can be built up and refined. The user is also able to specify particular object words falling within the meaning of the object word of a particular process definition which can be called up in tabular form on the screen, overwriting the display of process definitions in the process structure.

32 Claims, 26 Drawing figures

Exemplary Claim Number: 16

Number of Drawing Sheets: 26

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Document](#) | [Claims](#) | [TOC](#) | [Drawings](#)

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23. Document ID: US 5999525 A

L6: Entry 23 of 39

File: USPT

Dec 7, 1999

US-PAT-NO: 5999525

DOCUMENT-IDENTIFIER: US 5999525 A

TITLE: Method for video telephony over a hybrid network

DATE-ISSUED: December 7, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Krishnaswamy; Sridhar	Cedar Rapids	IA		
Elliott; Isaac K.	Colorado Springs	CO		
Reynolds; Tim E.	Iowa City	IA		
Forgy; Glen A.	Iowa City	IA		
Solbrig; Erin M.	Cedar Rapids	IA		

US-CL-CURRENT: 370/352; 370/389, 370/392, 379/114.15, 379/90.01, 379/93.07

ABSTRACT:

Telephone calls, data and other multimedia information including video, audio and data is routed through a switched network which includes transfer of information across the internet. Users can transmit video, audio and data communications of designated quality over the internet to other registered video telephony users. Users can manage more aspects of a network than previously possible, and control network activities from a central site.

30 Claims, 190 Drawing figures

Exemplary Claim Number: 11

Number of Drawing Sheets: 134

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Document](#) | [Claims](#) | [TOC](#) | [Drawings](#)

24. Document ID: US 5960200 A

L6: Entry 24 of 39

File: USPT

Sep 28, 1999

US-PAT-NO: 5960200

DOCUMENT-IDENTIFIER: US 5960200 A

TITLE: System to transition an enterprise to a distributed infrastructure

DATE-ISSUED: September 28, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Eager; Timothy	Fullerton	CA		
Anand; Madhav	Cambridge	MA		
Aslanian; Edouard	Hermosa Beach	CA		

US-CL-CURRENT: 717/147; 703/13, 703/20, 705/7, 709/201, 717/103, 717/104, 717/108

ABSTRACT:

An automated system transitions an entire enterprise to a distributed infrastructure. The system includes a process for organizing and managing the transition, a multi-tiered client/server architecture that adheres to open systems standards, a system to automate the transition of existing applications to this architecture, and a system to enable the creation or modification of applications based on this architecture.

54 Claims, 36 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 36

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [Com](#) | [Draw](#) |

25. Document ID: US 5915240 A

L6: Entry 25 of 39

File: USPT

Jun 22, 1999

US-PAT-NO: 5915240

DOCUMENT-IDENTIFIER: US 5915240 A

TITLE: Computer system and method for accessing medical information over a network

DATE-ISSUED: June 22, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Karpf; Ronald S.	Gaithersburg	MD	20878	

US-CL-CURRENT: 705/2; 705/1, 709/203, 709/227

**ABSTRACT:**

The invention is a Medical Lookup Reference computer system for accessing medical information over a network. The system partitions the functioning of the system between a client and server program in an optimal manner to assure synchronization of the master medical information databases on the servers with the local medical information database on the client, minimize the use of network resources, and allow new types of medical information to be easily included in the system. A server site on the network maintains a description of its medical information, as well as the most current and up-to-date medical reference information. The client program maintains a local database which is automatically synchronized over the network with revisions and new medical information, and provides a user with an interface to fully review the information in the database.

The system also uses a context-sensitive call facility so that users of the Medical Lookup Reference program can easily get further expert assistance about the medical topic. The call feature uses the network connection to establish a conversation between the user and a person at a help site specified by the type of medical information they are currently referencing. Once a connection is established, the system allows the user to engage in a conversation with the person at the help site, and a record of the conversation can be saved in a database for auditing purposes.

12 Claims, 24 Drawing figures

Exemplary Claim Number: 11

Number of Drawing Sheets: 23

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) |  |  |  | [Claims](#) | [DOCID](#) | [Create Doc](#)

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26. Document ID: US 5867495 A

L6: Entry 26 of 39

File: USPT

Feb 2, 1999

US-PAT-NO: 5867495

DOCUMENT-IDENTIFIER: US 5867495 A

TITLE: System, method and article of manufacture for communications utilizing calling, plans in a hybrid network

DATE-ISSUED: February 2, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Elliott; Isaac K.	Colorado Springs	CO		
Krishnaswamy; Sridhar	Cedar Rapids	IA		

US-CL-CURRENT: 370/352; 370/389, 370/392, 379/11, 379/115.01, 379/90.01, 379/93.07

**ABSTRACT:**

Telephone calls, data and other multimedia information is routed through a hybrid network which includes transfer of information across the internet utilizing telephony routing information and internet protocol address information. A media order entry captures complete user profile information for a user. This profile

information is utilized by the system throughout the media experience for routing, billing, monitoring, reporting and other media control functions. Users can manage more aspects of a network than previously possible, and control network activities from a central site. Calling card access is provided for users and supports typical calls as well as media transfers over the hybrid network including over the internet.

27 Claims, 190 Drawing figures  
Exemplary Claim Number: 19  
Number of Drawing Sheets: 132

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Search](#) | [Claims](#) | [DOC](#) | [Drawings](#)

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27. Document ID: US 5867494 A

L6: Entry 27 of 39

File: USPT

Feb 2, 1999

US-PAT-NO: 5867494

DOCUMENT-IDENTIFIER: US 5867494 A

TITLE: System, method and article of manufacture with integrated video conferencing billing in a communication system architecture

DATE-ISSUED: February 2, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Krishnaswamy; Sridhar	Cedar Rapids	IA		
Elliott; Isaac K.	Colorado Springs	CO		
Reynolds; Tim E.	Iowa City	IA		
Forgy; Glen A.	Iowa City	IA		
Solbrig; Erin M.	Cedar Rapids	IA		

US-CL-CURRENT: 370/352; 370/389, 370/392, 379/114.15, 379/90.01, 379/93.07

ABSTRACT:

Telephone calls, data and other multimedia information including video, audio and data is routed through a switched network which includes transfer of information across the internet. Users can participate in video conference calls in which each participant can simultaneously view the video from each other participant and hear the mixed audio from all participants. Users can also share data and documents with other video conference participants. Users can manage more aspects of a network than previously possible, and control network activities from a central site. Billing of the conference call is accomplished utilizing a billing detail record to capture events associated with a call as they occur and debit the appropriate bill.

20 Claims, 192 Drawing figures  
Exemplary Claim Number: 7  
Number of Drawing Sheets: 134

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28. Document ID: US 5826086 A

L6: Entry 28 of 39

File: USPT

Oct 20, 1998

US-PAT-NO: 5826086

DOCUMENT-IDENTIFIER: US 5826086 A

TITLE: Device and method for aiding designing process of software development

DATE-ISSUED: October 20, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Arima; Yasuhiko	Sapporo			JP
Nishiyama; Yoshio	Kawasaki			JP
Fukao; Itaru	Kawasaki			JP
Abe; Hiroaki	Kawasaki			JP
Kubota; Yuji	Sapporo			JP

US-CL-CURRENT: 717/105, 715/967, 717/113

ABSTRACT:

A device for aiding a software designing process in which software is divided into a plurality of tasks includes a dynamic-specification-information editing unit for defining dynamic behaviors between the tasks to create a dynamic specification, a static-specification-information editing unit for defining static configurations between the tasks to create a static specification, and an editing-unit-coordination controlling unit for coordinating operations of the dynamic-specification-information editing unit and the static-specification-information editing unit.

17 Claims, 22 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 22

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29. Document ID: US 5767854 A

L6: Entry 29 of 39

File: USPT

Jun 16, 1998

US-PAT-NO: 5767854

DOCUMENT-IDENTIFIER: US 5767854 A

TITLE: Multidimensional data display and manipulation system and methods for using same

DATE-ISSUED: June 16, 1998

**INVENTOR-INFORMATION:**

NAME	CITY	STATE	ZIP CODE	COUNTRY
Anwar; Mohammed S.	Houston	TX	77055	.

US-CL-CURRENT: 715/848; 345/419**ABSTRACT:**

This invention discloses a user interface and data management procedures for the efficient display, manipulation and analysis of multi attributed data or data amenable to multidimensional display, manipulation and management. The invention is centered on the construction and use of data carousels comprising one or more n-gons where the each n-gon can be a layered n-gon at solid or each side of each n-gon can be a single face of an embedded n-gon.

10 Claims, 39 Drawing figures

Exemplary Claim Number: 7

Number of Drawing Sheets: 39

Full	Title	Citation	Front	Review	Classification	Date	Reference	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	Claims	KindC	Dream D-
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 30. Document ID: US 5717913 A

L6: Entry 30 of 39

File: USPT

Feb 10, 1998

US-PAT-NO: 5717913

DOCUMENT-IDENTIFIER: US 5717913 A

TITLE: Method for detecting and extracting text data using database schemas

DATE-ISSUED: February 10, 1998

**INVENTOR-INFORMATION:**

NAME	CITY	STATE	ZIP CODE	COUNTRY
Driscoll; James R.	Orlando	FL		.

US-CL-CURRENT: 707/5; 707/4**ABSTRACT:**

An Information Filtering (IF) system for retrieving relevant text data from a data base document collection is disclosed. A user can use this system to access a dynamic data stream to retrieve relevant data such as accessing e-mail or a wire-service. Alternatively, a user can use the IF system to access an data storage archive such as electronically stored patents, journals and the like. The invention includes several steps. The first step has a user reduce the information they are interested in into a tangible form such as manually writing a natural language user need statement, or alternatively imputing the statement electronically into a computer file for storage. The next step is to create a filter window having an adjustable document viewing text length, that will be used to electronically scan through the database collection of documents in order to determine a relevancy value for each scanned document. The filter can be created several ways using synonym and domain lists. Alternatively, the synonym and lists for each document

can be determined by Entity-Relationship (ER) modelling to generate a search schema. After documents receive relevancy values, the user is free to view only those documents having relevancy values that exceed a preselected threshold value. Documents can be ranked from most relevant to least relevant. Feedback information from viewing the retrieved documents can be used to update the synonym/domain lists of the filtering window to enhance the relevance retrieval of subsequent documents.

11 Claims, 16 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 16

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Specification	Claims	Index	Drawn
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31. Document ID: US 5535325 A

L6: Entry 31 of 39

File: USPT

Jul 9, 1996

US-PAT-NO: 5535325

DOCUMENT-IDENTIFIER: US 5535325 A

TITLE: Method and apparatus for automatically generating database definitions of indirect facts from entity-relationship diagrams

DATE-ISSUED: July 9, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cattell; Kevin T.	Garner	NC		
Cromer; William R.	Raleigh	NC		
Lin; Shihta	San Jose	CA		
Neuchterlein; Bruce E.	Cary	NC		
Potok; Thomas E.	Apex	NC		

US-CL-CURRENT: 707/102; 715/967, 717/123

ABSTRACT:

A computer-implemented process accepts information input from an existing ER model of data representing a given environment and, in response to the input, automatically creates a new database structural definition that represents indirect facts about a base entity that are indicated by the input.

10 Claims, 7 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 6

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Specification	Claims	Index	Drawn
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32. Document ID: US 5495567 A

US-PAT-NO: 5495567

DOCUMENT-IDENTIFIER: US 5495567 A

TITLE: Automatic interface layout generator for database systems

DATE-ISSUED: February 27, 1996

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Iizawa; Atsushi	Tokyo			JP
Yoshiura; Yukari	Kanagawa			JP
Pizano; Arturo	Milpitas	CA		

US-CL-CURRENT: 715/762; 707/102, 715/967, 715/968

## ABSTRACT:

An automatic interface layout generator for database systems is disclosed herein. The automatic generator includes a specification tool for specifying a set of block descriptions representative of specified portions of a database. A block layout generator produces interface objects to be included within an interface of the database, wherein each of the interface objects corresponds to one of the block descriptions and includes a plurality of layout fields. A layout quality parameter is determined for each of the interface objects based on arrangement of the layout fields within the interface objects. A block placement generator arranges sets of the interface objects into block configurations within the interface. A placement quality parameter for each of the block configurations is derived based on a set of block placement rules and on the layout quality parameters, and a final block configuration is selected by comparing the placement quality parameters corresponding to particular block configurations.

17 Claims, 38 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 24

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	Table	Drawings
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 33. Document ID: US 5488722 A

US-PAT-NO: 5488722

DOCUMENT-IDENTIFIER: US 5488722 A

TITLE: System and method for automating implementation and execution of constraint most likely to be violated in a database

DATE-ISSUED: January 30, 1996

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Potok; Thomas E.	Apex	NC		

US-CL-CURRENT: 707/2

ABSTRACT:

Disclosed is a system and method of operating a computer to update a database. An entry made by a user for creating, deleting or modifying an entity type instance is checked to determine applicable constraints, which are then activated and placed in a pool. A firing order is then determined for the activated constraints. The first ranked constraint is then coded, using database calls if necessary to provide data for the logical statements, after which the coded constraint is fired. If the constraint was violated an error is signalled and processing is returned to the step of activating constraints for treatment of revised user data. Otherwise, it is determined if any constraints remain to be fired before returning to the step of activating or exiting.

12 Claims, 6 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Abstract](#) | [Claims](#) | [EPOC](#) | [Drawn To](#)

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34. Document ID: US 5487135 A

L6: Entry 34 of 39

File: USPT

Jan 23, 1996

US-PAT-NO: 5487135

DOCUMENT-IDENTIFIER: US 5487135 A

TITLE: Rule acquisition in knowledge based systems

DATE-ISSUED: January 23, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Freeman; Paul R. W.	Southville Bristol			GB2

US-CL-CURRENT: 706/59

ABSTRACT:

A rule-based system, concerned with a domain of knowledge or operations (the domain theory) and having associated therewith a rule-based entity relationship (ER) system (the ER theory) which represents the domain theory diagrammatically, is supported by a computer system. The system, which constructs a new rule for the domain theory, controls the entry into conditions storage memory or note pad (16) of conditions which together represent the desired rule, and rule assembly logic (17) that generates the desired rule from those entries. A display device (14) displays an ER diagram (FIG. 2) obtained from the ER theory and stored in memory (11, 12). An operator selects, via a mouse and control logic (13, 15), elements of the ER diagram. These elements are entered into the conditions storage means or

note pad (16). Attributes are entered via a combination of selection from the ER diagram and semantic constraints on their values. When all elements and attributes have been so entered, they are compiled into the new rule by rule assembly logic (17) and assimilated into the domain theory by assimilator logic (18).

15 Claims, 9 Drawing figures

Exemplary Claim Number: 8

Number of Drawing Sheets: 8

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	TOC	Draft
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35. Document ID: US 5469539 A

L6: Entry 35 of 39

File: USPT

Nov 21, 1995

US-PAT-NO: 5469539

DOCUMENT-IDENTIFIER: US 5469539 A

TITLE: Method for abstracting/detailing structuring elements of system specification information

DATE-ISSUED: November 21, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Usuda; Yutaka	Yokohama			JP

US-CL-CURRENT: 715/841; 345/440, 715/853

ABSTRACT:

The specification abstracting-detailing system stores system specification information in a hierarchical structure. A hierarchy operation selects an object to be detailed or abstracted from the specification information, for updating hierarchical information of a hierarchy between specification information of the hierarchy in such a state that a logical relation of the specification information contained in the hierarchy of the object selected, and for creating or deleting a new hierarchy. This allows the abstracting and detailing to be performed in the course of a natural thinking process by a designer.

1 Claims, 12 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 11

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	TOC	Draft
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36. Document ID: US 5386571 A

L6: Entry 36 of 39

File: USPT

Jan 31, 1995

US-PAT-NO: 5386571

DOCUMENT-IDENTIFIER: US 5386571 A

\*\* See image for Certificate of Correction \*\*

TITLE: Computer system and method for storing and displaying of a semantically structured entity relationship diagram

DATE-ISSUED: January 31, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kurz; Wolfgang	Stuttgart			DE

US-CL-CURRENT: 707/100; 358/1.18

ABSTRACT:

The invention concerns a method and system for storing and displaying an entity relationship diagram. The entity relationship diagram of the invention is composed of only four different classes of allowed entity types. Thereby redundancy is eliminated and less storage locations are needed to store the diagram. The diagram comprises kernel entity sets K, attributive entity sets A, role entity sets P and relation entity sets R which are displayed on a display 9.

19 Claims, 17 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 9

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)  [Claims](#) | [DOC](#) | [Draw](#)

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37. Document ID: US 5369761 A

L6: Entry 37 of 39

File: USPT

Nov 29, 1994

US-PAT-NO: 5369761

DOCUMENT-IDENTIFIER: US 5369761 A

\*\* See image for Certificate of Correction \*\*

TITLE: Automatic and transparent denormalization support, wherein denormalization is achieved through appending of fields to base relations of a normalized database

DATE-ISSUED: November 29, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Conley; John D.	Plano	TX	75025	
Whitehurst; Richard P.	Plano	TX	75023	

US-CL-CURRENT: 707/2

ABSTRACT:

A system may be used to enable a database administrator to selectively denormalize

a database transparently to users and programmers. The system keeps a record of the mapping between the denormalized fields and the base fields from which they are derived. Processors access those recorded links to keep the database self-consistent and to retrieve data from denormalized fields whenever possible.

6 Claims, 11 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 8

Full	Title	Citation	Front	Review	Classification	Date	Reference	Examiner	Supervisor	Claims	Index	Image
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38. Document ID: US 4868733 A

L6: Entry 38 of 39

File: USPT

Sep 19, 1989

US-PAT-NO: 4868733

DOCUMENT-IDENTIFIER: US 4868733 A

TITLE: Document filing system with knowledge-base network of concept interconnected by generic, subsumption, and superclass relations

DATE-ISSUED: September 19, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fujisawa; Hiromichi	Tokorozawa			JP
Higashino; Jun'ichi	Kokubunji			JP
Hatakeyama; Atushi	Kokubunji			JP

US-CL-CURRENT: 707/5; 706/50, 706/53, 706/55, 706/934, 715/533

ABSTRACT:

A document filing system is provided for storing a large amount of information in proper arrangement for facilitating utilization thereof by a user, while allowing semantical retrieval to be realized even from vague fragmental information. Further, a method is provided for expressing the facts constituting information in terms of "concepts" representing things and "relations" defined between the concepts internally of computer, and a method of inputting user's information to a computer through dialogical procedure and retrieving desired information. Information stored of the computer architects internally a concept network which is displayed in various forms such as hierarchical form based on subsumption relations between the concepts, hierarchical representation based on part-whole relation between the concept, a frame display of a single concepts, and tabular representation of a set of concepts belonging to a given class. The network may be browsed by referring to the contents of the display so that a user can easily know what kind of information has been stored internally of the computer, whereby he or she can perform inputting of new information and retrieval of desired information in a facilitated and simplified manner. The relations stored internally of the computer are classified into "generic relationship" and "instance relation" representing individual facts, whereby a generic framework of facts can be stored. The generic framework is displayed upon interaction with the user for allowing new information to be inputted and desired information to be retrieved in a facilitated and simplified manner. Retrieval by using semantic retrieval formula created

internally through dialogical procedure is realized through inferring processing.

8 Claims, 25 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 24

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Document](#) | [Claims](#) | [TOC](#) | [Drawing](#)

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39. Document ID: US 4223654 A

L6: Entry 39 of 39

File: USPT

Sep 23, 1980

US-PAT-NO: 4223654

DOCUMENT-IDENTIFIER: US 4223654 A

TITLE: Method and apparatus for controlling the operation of a diesel engine

DATE-ISSUED: September 23, 1980

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wessel; Wolf	Oberriexingen			DE
Sautter; Wilfried	Ditzingen			DE
Engel; Gerhard	Stuttgart			DE
Stumpf; Gerhard	Stuttgart			DE

US-CL-CURRENT: 123/358

ABSTRACT:

A method and apparatus for controlling a Diesel engine by limiting the amount of fuel to be admitted to the engine in dependence on engine speed and on the air mass flow rate. The invention provides a primary set of stored data interrelating these variables. The primary data set is used to generate a set-point value for the position of a movable stop member which limits the mechanical travel of the fuel control rack in the fuel injection pump; the control rack is also subject to the action of a mechanical speed governor. Additional corrections of the maximum amount of fuel are made on the basis of air temperature and fuel temperature. Still further refinements include taking into account exhaust gas temperature and engine starting conditions. The final corrected set-point signal is then compared with the output from a position indicator which is attached to the stop member. A servo-controlled element corrects the position of the stop member until the error indications are minimized in a closed loop, feedback control circuit.

33 Claims, 14 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 6

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1. Document ID: US 6859523 B1

L9: Entry 1 of 10

File: USPT

Feb 22, 2005

US-PAT-NO: 6859523

DOCUMENT-IDENTIFIER: US 6859523 B1

TITLE: Universal task management system, method and product for automatically managing remote workers, including assessing the work product and workers

DATE-ISSUED: February 22, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jilk; David J.	Broomfield	CO		
Kellner; Brian L.	Superior	CO		
Ganora; Victor	Louisville	CO		
Kotsines; Thomas A.	Denver	CO		

US-CL-CURRENT: 379/32.01, 379/265.01, 379/265.03, 379/265.05, 379/265.06,  
379/265.12, 379/32.02

ABSTRACT:

A computer implemented method, a system, and a software product to automatically manage one or more human workers carrying out a process of manipulating source data provided to produce result data. The process including a set of one or more task steps each having an input and resulting in a task result. The computer implemented method includes receiving units of source data from a customer. For each unit of source data and each task step for the unit of source data, the method includes dispatching the task step and its corresponding input unit to a worker and, after the worker carries out the dispatched task step on the input unit, receiving the task result corresponding to the dispatched task step and input unit from the worker. Each worker is certified to have one or more task skills, wherein each task step requires a corresponding task skill, and wherein the dispatching of any task step occurs automatically substantially without human management to a worker who is certified to have the corresponding task skill of the task step. The method further includes assessing at least some of the task results of at least some of the task steps for at least some of the units of source data. A version of the method further includes generating the result data for the unit of source data from one or more of the task results corresponding to the task steps of the set and sending the result data for the unit of source data to the customer.

79 Claims, 11 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 9

[Full | Title | Citation | Front | Review | Classification | Date | Reference] [Claims | KWC | Drawn D]

2. Document ID: US 6754181 B1

L9: Entry 2 of 10

File: USPT

Jun 22, 2004

US-PAT-NO: 6754181

DOCUMENT-IDENTIFIER: US 6754181 B1

TITLE: System and method for a directory service supporting a hybrid communication system architecture

DATE-ISSUED: June 22, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Elliott; Isaac K.	Colorado Springs	CO		
Krishnawswamy; Sridhar	Cedar Rapid	IA		

US-CL-CURRENT: 370/252; 370/352, 370/356

ABSTRACT:

Telephone calls, data and other multimedia information is routed through a hybrid network which includes transfer of information across the internet utilizing telephony routing information and internet protocol address information. A media order entry captures complete user profile information for a user. This profile information is utilized by the system throughout the media experience for routing, billing, monitoring, reporting and other media control functions. Users can manage more aspects of a network than previously possible, and control network activities from a central site. A directory service that supports a hybrid communication system architecture is provided for routing traffic over the hybrid network and the internet.

12 Claims, 191 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 133

[Full | Title | Citation | Front | Review | Classification | Date | Reference] [Claims | KWC | Drawn D]

3. Document ID: US 6731625 B1

L9: Entry 3 of 10

File: USPT

May 4, 2004

US-PAT-NO: 6731625

DOCUMENT-IDENTIFIER: US 6731625 B1

TITLE: System, method and article of manufacture for a call back architecture in a hybrid network with support for internet telephony

DATE-ISSUED: May 4, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Eastep; Guido M.	McKenney	TX		
Litzenberger; Paul	Wilie	TX		
Orebaugh; Shannon R.	Herndon	VA		

US-CL-CURRENT: 370/352; 370/389, 370/392, 379/114.01, 379/90.01, 379/93.07

ABSTRACT:

A callback system is created utilizing a hybrid telecommunication system including a switched communication network and a packet transmission network. A call parameter database is stored in a memory. A call is received on the system. The call parameter database is accessed to determine at least one call parameter. The call is routed over the switched communication network and the packet transmission network based on the at least one call parameter. A plurality of service engines is provided, each configured to execute desired service logic utilizing expert system.

39 Claims, 188 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 187

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | | Claims | KINC | Drawn Ds

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4. Document ID: US 6476814 B1

L9: Entry 4 of 10

File: USPT

Nov 5, 2002

US-PAT-NO: 6476814

DOCUMENT-IDENTIFIER: US 6476814 B1

TITLE: Display structure for representation of complex systems

DATE-ISSUED: November 5, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Garvey; Robert B.	Lake Lotawana	MO		

US-CL-CURRENT: 345/440

ABSTRACT:

A multi-dimensional outline, a wordgraph, represents a subset of a directed graph with a given starting node where all edges related to a node in one direction, either incident out of that node or incident into that node appear indented below that node as in outlining represented by their terminal node or initial node respectively and all edges related in the other direction appear indented above that node represented by their initial node or terminal node, respectively, with the initial nodes and terminal nodes distinguished.

10 Claims, 2 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 2

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KINIC](#) | [Drawn D](#)

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5. Document ID: US 6335927 B1

L9: Entry 5 of 10

File: USPT

Jan 1, 2002

US-PAT-NO: 6335927

DOCUMENT-IDENTIFIER: US 6335927 B1

TITLE: System and method for providing requested quality of service in a hybrid network

DATE-ISSUED: January 1, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Elliott; Isaac K.	Colorado Springs	CO		
Reynolds; Tim E.	Iowa City	IA		
Krishnaswamy; Sridhar	Cedar Rapid	IA		

US-CL-CURRENT: 370/352

ABSTRACT:

Telephone calls, data and other multimedia information is routed through a hybrid network which includes transfer of information across the internet. A media order entry captures complete user profile information for a user. This profile information is utilized by the system throughout the media experience for routing, billing, monitoring, reporting and other media control functions. Users can manage more aspects of a network than previously possible, and control network activities from a central site. The hybrid network also contains logic for responding to requests for quality of service and reserving the resources to provide the requested services.

16 Claims, 191 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 133

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KINIC](#) | [Drawn D](#)

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6. Document ID: US 5999525 A

L9: Entry 6 of 10

File: USPT

Dec 7, 1999

US-PAT-NO: 5999525

DOCUMENT-IDENTIFIER: US 5999525 A

TITLE: Method for video telephony over a hybrid network

DATE-ISSUED: December 7, 1999

**INVENTOR - INFORMATION:**

NAME	CITY	STATE	ZIP CODE	COUNTRY
Krishnaswamy; Sridhar	Cedar Rapids	IA		
Elliott; Isaac K.	Colorado Springs	CO		
Reynolds; Tim E.	Iowa City	IA		
Forgy; Glen A.	Iowa City	IA		
Solbrig; Erin M.	Cedar Rapids	IA		

**US-CL-CURRENT:** 370/352, 370/389, 370/392, 379/114.15, 379/90.01, 379/93.07

## **ABSTRACT:**

Telephone calls, data and other multimedia information including video, audio and data is routed through a switched network which includes transfer of information across the internet. Users can transmit video, audio and data communications of designated quality over the internet to other registered video telephony users. Users can manage more aspects of a network than previously possible, and control network activities from a central site.

30 Claims, 190 Drawing figures

Exemplary Claim Number: 11

Number of Drawing Sheets: 134

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KM/C	Drau...
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7. Document ID: US 5867495 A

L9: Entry 7 of 10

File: USPT

Feb 2, 1999

US-PAT-NO: 5867495

DOCUMENT-IDENTIFIER: US 5867495 A

**TITLE:** System, method and article of manufacture for communications utilizing calling, plans in a hybrid network

DATE-ISSUED: February 2, 1999

**INVENTOR-INFORMATION:**

NAME	CITY	STATE	ZIP CODE	COUNTRY
Elliott; Isaac K.	Colorado Springs	CO		
Krishnaswamy; Sridhar	Cedar Rapids	IA		

**US-CL-CURRENT:** 370/352; 370/389, 370/392, 379/11, 379/115.01, 379/90.01, 379/93.07

## ABSTRACT:

Telephone calls, data and other multimedia information is routed through a hybrid

network which includes transfer of information across the internet utilizing telephony routing information and internet protocol address information. A media order entry captures complete user profile information for a user. This profile information is utilized by the system throughout the media experience for routing, billing, monitoring, reporting and other media control functions. Users can manage more aspects of a network than previously possible, and control network activities from a central site. Calling card access is provided for users and supports typical calls as well as media transfers over the hybrid network including over the internet.

27 Claims, 190 Drawing figures

Exemplary Claim Number: 19

Number of Drawing Sheets: 132

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Drawn D](#)

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8. Document ID: US 5867494 A

L9: Entry 8 of 10

File: USPT

Feb 2, 1999

US-PAT-NO: 5867494

DOCUMENT-IDENTIFIER: US 5867494 A

TITLE: System, method and article of manufacture with integrated video conferencing billing in a communication system architecture

DATE-ISSUED: February 2, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Krishnaswamy; Sridhar	Cedar Rapids	IA		
Elliott; Isaac K.	Colorado Springs	CO		
Reynolds; Tim E.	Iowa City	IA		
Forgy; Glen A.	Iowa City	IA		
Solbrig; Erin M.	Cedar Rapids	IA		

US-CL-CURRENT: 370/352; 370/389, 370/392, 379/114.15, 379/90.01, 379/93.07

ABSTRACT:

Telephone calls, data and other multimedia information including video, audio and data is routed through a switched network which includes transfer of information across the internet. Users can participate in video conference calls in which each participant can simultaneously view the video from each other participant and hear the mixed audio from all participants. Users can also share data and documents with other video conference participants. Users can manage more aspects of a network than previously possible, and control network activities from a central site. Billing of the conference call is accomplished utilizing a billing detail record to capture events associated with a call as they occur and debit the appropriate bill.

20 Claims, 192 Drawing figures

Exemplary Claim Number: 7

Number of Drawing Sheets: 134

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Dra
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**9. Document ID: US 5487135 A**

L9: Entry 9 of 10

File: USPT

Jan 23, 1996

US-PAT-NO: 5487135

DOCUMENT-IDENTIFIER: US 5487135 A

TITLE: Rule acquisition in knowledge based systems

DATE-ISSUED: January 23, 1996

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Freeman; Paul R. W.	Southville Bristol			GB2

US-CL-CURRENT: 706/59

## ABSTRACT:

A rule-based system, concerned with a domain of knowledge or operations (the domain theory) and having associated therewith a rule-based entity relationship (ER) system (the ER theory) which represents the domain theory diagrammatically, is supported by a computer system. The system, which constructs a new rule for the domain theory, controls the entry into conditions storage memory or note pad (16) of conditions which together represent the desired rule, and rule assembly logic (17) that generates the desired rule from those entries. A display device (14) displays an ER diagram (FIG. 2) obtained from the ER theory and stored in memory (11, 12). An operator selects, via a mouse and control logic (13, 15), elements of the ER diagram. These elements are entered into the conditions storage means or note pad (16). Attributes are entered via a combination of selection from the ER diagram and semantic constraints on their values. When all elements and attributes have been so entered, they are compiled into the new rule by rule assembly logic (17) and assimilated into the domain theory by assimilator logic (18).

15 Claims, 9 Drawing figures

Exemplary Claim Number: 8

Number of Drawing Sheets: 8

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Dra
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**10. Document ID: US 5469539 A**

L9: Entry 10 of 10

File: USPT

Nov 21, 1995

US-PAT-NO: 5469539

DOCUMENT-IDENTIFIER: US 5469539 A

TITLE: Method for abstracting/detailing structuring elements of system

specification information

DATE-ISSUED: November 21, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Usuda; Yutaka	Yokohama			JP

US-CL-CURRENT: 715/841; 345/440, 715/853

ABSTRACT:

The specification abstracting-detailing system stores system specification information in a hierarchical structure. A hierarchy operation selects an object to be detailed or abstracted from the specification information, for updating hierarchical information of a hierarchy between specification information of the hierarchy in such a state that a logical relation of the specification information contained in the hierarchy of the object selected, and for creating or deleting a new hierarchy. This allows the abstracting and detailing to be performed in the course of a natural thinking process by a designer.

1 Claims, 12 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 11

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